

CLAIMS

1. A method for internet protocol (IP) address
5 allocation comprising the step of:
requesting by a mobile station an activation for a
unique IP address for an external network;
statefully obtaining by a network the unique IP
address from the external network; and
10 transmitting the unique IP address by the network
to the mobile station.
2. A method for IP address allocation as claimed in
claim 1, wherein the step of statefully obtaining
15 includes the step of soliciting by the network access
to an address server within the external network.
3. A method for IP address allocation as claimed in
claim 2, wherein the step of statefully obtaining
20 further includes the step of sending by the address
server an advertisement message to the network.
4. A method for IP address allocation as claimed in
claim 3, wherein the step of statefully obtaining
25 further includes the step of responsive to said
advertisement message, requesting by the network the
unique IP address via an address request message.
5. A method for IP address allocation as claimed in
30 claim 4, wherein the step of statefully obtaining
further includes the step of responsive to the address
request message, assigning the unique IP address to the
network for use by the mobile station.
- 35 6. A method for IP address allocation as claimed in
claim 5, wherein there is further included a step of

performing a duplicate address detection procedure by the network on the unique IP address to insure uniqueness of the unique IP address.

5 7. A method for IP address allocation as claimed in claim 6, wherein there is further included the step of sending by the network the unique IP address to the mobile station.

10 8. A method for IP address allocation as claimed in claim 7, wherein there is further included the step of sending by the network an address prefix of the external network to the mobile station.

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9. In a mobile network, a method for obtaining an internet protocol (IP) address comprising the steps of:
requesting by a mobile station an activation for a
5 unique IP address for an external network;
statefully obtaining by the mobile network the
unique IP address from the external network; and
transmitting the unique IP address by the mobile
network to the mobile station.
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10. A method for IP address allocation as claimed in
claim 9, wherein the step of statefully obtaining
includes the step of soliciting by the mobile network
access to an address server within the external
15 network.
11. A method for IP address allocation as claimed in
claim 10, wherein the step of statefully obtaining
further includes the step of sending by the address
20 server an advertisement message to the mobile network.
12. A method for IP address allocation as claimed in
claim 11, wherein the step of statefully obtaining
further includes the step of responsive to said
25 advertisement message, requesting by the mobile network
the unique IP address via an address request message.
13. A method for IP address allocation as claimed in
claim 12, wherein the step of statefully obtaining
30 further includes the step of responsive to the address
request message, assigning the unique IP address to the
mobile network for use by the mobile station.
14. A method for IP address allocation as claimed in
35 claim 13, wherein there is further included the step of
performing a duplicate address detection procedure by

the mobile network on the unique IP address to insure uniqueness of the unique IP address.

15. A method for IP address allocation as claimed in
5 claim 14, wherein there is further included the step of sending by the mobile network the unique IP address to the mobile station.

16. A method for IP address allocation as claimed in
10 claim 15, wherein there is further included the step of sending by the mobile network an address prefix of the external network to the mobile station.

17. A network method for allocating a unique IP
15 address comprising the steps of:
receiving a request for a unique IP address;
statefully obtaining the unique IP address from an external network; and
transmitting the unique IP address to a requester.

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18. A method for IP address allocation as claimed in claim 17, wherein the step of statefully obtaining includes the step of soliciting by a network access to an address server within the external network.

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19. A method for IP address allocation as claimed in claim 17, wherein the step of statefully obtaining further includes a step of requesting by the network the unique IP address via an address request message.

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20. A method for IP address allocation as claimed in claim 18, wherein there is further included a step of performing a duplicate address detection procedure by the network on the unique IP address to insure
35 uniqueness of the unique IP address.

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